

TIMBRAL EXPLORATIONS FOR WIND & PERCUSSION INSTRUMENTS

Accompanying Document for *Breath of the Mountains*

A Thesis  
by  
BENJAMIN PARKS DAWSON

Submitted to the Graduate School  
at Appalachian State University  
in partial fulfillment of the requirements for the degree of  
MASTER OF MUSIC

May 2017  
Hayes School of Music

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APPROVED BY:

---

Ben Hjertmann, D.M.  
Chairperson, Thesis Committee

---

Hiu-Wah Au, Ph.D.  
Member, Thesis Committee

---

Victor N. Mansure, D.M.A.  
Member, Thesis Committee  
Coordinator, Hayes School of Music Graduate Studies

---

Max C. Poole, Ph.D.  
Dean, Cratis D. Williams School of Graduate Studies

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## Abstract

### TIMBRAL EXPLORATIONS FOR WIND & PERCUSSION INSTRUMENTS

Benjamin Parks Dawson  
B.A., Thomas Edison State University

Chairperson: Ben Hjertmann, D.M.

This thesis is divided into two parts: a composition element and a research element. The composition element consists of a thirteen-minute work for wind ensemble titled *Breath of the Mountains*. The research element consists of the exploration and discovery of unusual sounds and extended techniques (in collaboration with instrumental performers) that were individually recorded and then described in this document. These two elements were combined by incorporating selected sounds and techniques in the composition *Breath of the Mountains*.

## Acknowledgments

Special thanks to the following instrumentalists, who offered descriptions of extended technique performance methods and performed for the recordings:

Samuel Plato, flute

Nick Powell, oboe

Rachel Davis, bassoon

Andrew Paluszak, clarinet

Andres Orench, alto saxophone

Tim Hamilton, trumpet

Daniel Harris, French horn

Caleb McMahon, trombone

S.J. Higgins, tuba

Andrew Henry, percussion

Special thanks to Scott Wynne, Director of the Gilley Recording Studio at Appalachian State University, and Henry Neal, Studio Manager at GRS, for the use of recording equipment.

Lastly, I would be remiss to conclude without giving recognition and appreciation to my composition advisor, Dr. Ben Hjertmann, for his support, encouragement and instruction throughout the writing of this thesis, and over the past two years in general.

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## SECTION I: INTRODUCTION

*Breath of the Mountains* was written for the Appalachian Wind Ensemble with the intent of creating a large musical work to explore and highlight unusual instrumental timbres. The piece was improved and expanded by the inclusion of extended techniques and unusual sounds for wind and percussion instruments.

Extended techniques are methods of producing sounds from an instrument that fall outside of the realm of standard performance practice. Seventy-one (71) extended techniques produced by nine wind instruments and four percussion instruments were recorded with the assistance of performers from the Hayes School of Music. The recorded techniques were then evaluated for inclusion in the composition *Breath of the Mountains* and have been documented in this accompanying paper.

## SECTION 2: COMPOSITION OF *BREATH OF THE MOUNTAINS*

*Breath of the Mountains* is a two-movement work for wind ensemble. Each movement is between five and seven minutes in length. The intent for this work was to write a piece of substantial length while researching and incorporating extended instrumental techniques. The two movements are separate by design, each containing their own separate themes; however, they both contain a palette of extended techniques that tie the work together.

In the first movement the extended techniques are generally incorporated subtly with two notable exceptions: “blowing through instrument” at the beginning and “fluttersong” in the middle. In the second movement, the extended techniques are featured and presented much more prominently, as the piece ends with a “smear” technique in the clarinet.

The extended techniques in the piece reflect the concepts of wind and movement; an example of this is the “blowing through instrument” technique that opens the work. This connection is also noticeable in techniques such as using brushes on drumheads and performing smears on the clarinet.

The first movement is titled *Williwaw*, which means “a sudden violent gust of cold land air common along mountainous coasts of high latitudes.” (Merriam-Webster) The second movement is titled *Zephyr*, which is “a breeze from the west” or “a gentle breeze.” (Merriam-Webster)



### SECTION 3: DESCRIPTION OF EXTENDED TECHNIQUES

This document accompanies the full score of *Breath of the Mountains*. The purpose of this document is to list and describe the extended techniques that were discussed and recorded with the collaboration of student performers from Hayes School of Music.

Extended techniques provide a set of sounds that cannot be produced by common performance practice of musical instruments. In researching extended techniques, books, articles, and websites with instructions on execution were consulted (Brown, Cherry, 2013; Easton, Elliot, 2008; Estes, Gross, 1998; Horne, 2000; Hugill, Kennedy, 2016; Moller, Nelson, Parker, 2013; Pollard, 2012; Rees, 2013; Rehfeldt, 1977; Tictactux, 2007) and instrumentalists were then contacted to discuss and record selected techniques.

For this research, seventy (70) extended techniques for wind and percussion instruments were recorded, with thirty-one (31) included in *Breath of the Mountains*. The recorded instruments were flute, oboe, trombone, clarinet, french horn, bassoon, tuba, saxophone, trumpet, bass drum, suspended cymbal, snare drum, and timpani. The techniques/effects are documented based on what was recorded for each instrument; however, other instruments can perform many of these respective techniques as well.

As each technique is listed (Section 3), examples of measures that contain that technique within *Breath of the Mountains* are also provided. An accompanying compact disc with sound files is available.

## Extended Techniques Utilized by Multiple Instruments

### Blowing through Instrument

*Flute (track 1), Oboe (track 2), Bassoon (track 3), Clarinet (track 4), Alto Saxophone (track 5)*

(Flute measures 6 & 10, clarinet m. 6 & 10, saxophone m. 6 & 10)

By blowing into the instrument normally, but with less force than usual, a “whispering” sound can be achieved. Fingering pitches on the instrument while blowing affects the tone color of the sound. On the oboe, the reed can be removed to allow for greater volume.

*Trumpet (track 6), Trombone (track 7), Tuba (track 8)*

(Trumpet m. 1 & 10, trombone m. 1 & 10, tuba m. 1 & 10)

Blowing through the instrument without making pitch produces a gust of air. Trilling the valves while blowing produces a “rustling” effect. The brass instruments are used to produce large “puffs” of air in *Breath of the Mountains*, providing a support for the contours and variety of the woodwind air.

*(Trombone Blowing While Moving Trigger, track 9)*

The player can blow into the instrument while pushing the trigger in and out.

*(Trombone Blowing While Fluttering Tongue, track 10)*

Blowing into the instrument while fluttering the tongue inside the mouthpiece without making a pitch creates a low, buzzing sound.

*French Horn (track 11)*

(m. 5 & 7)

To amplify the sound, the player can remove the mouthpiece from the horn, turn it backwards and place it near the leadpipe, and blow through the end that is normally inserted into the horn.

### Fluttertongue

*Flute (track 12), Bassoon (track 13), Clarinet (track 14), Alto Saxophone (track 15), French Horn (track 16), Tuba (track 17)*

(Flute m. 207, 240, 249, bassoon m. 94, clarinet m. 213, alto saxophone m. 89, tuba m. 237)

Fluttertongue can be achieved when the player rolls an “R” sound with his/her tongue while playing the instrument normally. This results in a rough and jagged sound.

### Growl

*Trumpet (track 18), Trombone (track 19),*

(Trombone m. 237)

Producing a grunting sound in the back of the throat while playing a notated pitch creates a growl. A growl, similar to a fluttertongue, has a buzzing, rough sound. A growl can be a fluttertongue substitute for players who cannot roll an “R”.

### Scoop/Pitch Bend

*Flute (track 20) (pitch bend)*

(m. 95)

A pitch bend is produced by turning the flute while playing so that the embouchure hole moves closer to or farther from the mouth, causing the pitch to lower or raise, respectively, by approximately a half step.

*Bassoon (track 21), Alto Saxophone (track 22) (scoop)*

(Alto saxophone m. 110)

A scoop is a glissando-type effect where the player plays the notated pitch, but starts the pitch a half step flat, by loosening the jaw and embouchure. The player then raises the pitch, sliding into the notated pitch.

*French Horn (track 23) (hand scoop)*

(m. 54)

The hand scoop is produced by the player stopping the horn with the hand in the bell, and then pulling it out while playing a pitch. While the hand is inserted in the bell, a pitch lower than the one notated is produced. As the hand is pulled out, the sound raises to the fingered pitch, as if sliding into the note.

### Slap Tongue

*Bassoon (track 24), Clarinet (track 25), Alto Saxophone (track 26)*

The player presses his/her tongue against the mouthpiece and creates suction. This suction is released when the pitch is played, creating a smack to the attack of a pitch.

### Multiphonics

*Oboe (track 27), Bassoon (track 28), Clarinet (track 29), Alto Saxophone (track 30)*

By using non-standard fingerings, more than one pitch can be produced at a time, giving a complex collection of tones, which may have a bell-like, ringing sound.

### Singing while Playing

*Flute (track 31), French Horn (track 32), Trombone (track 33), Tuba (track 34)*

(Trombone m. 186)

A performer can sing a pitch while playing another pitch. The two notes clash within the instrument, creating a rough sound similar to multiphonics.

### Key Slaps/Clicks

*Flute (track 35), Clarinet (track 36), Alto Saxophone (track 37)*

When the player quickly slaps keys down without blowing, air moves through the instrument, creating a short, transparent sound.

*Oboe (track 38), Bassoon (track 39)*

By slapping the keys on the instrument without blowing, a dry, rattling effect can be created.

### Tongue Slap

*French Horn (track 40), Trumpet (track 41), Trombone (track 42), Tuba (track 43)*

(Trombone m. 8)

As a result of the player hitting his/her tongue against the back of the teeth while blowing into the instrument, a “thudding” sound can be created. There is a slight amount of pitch involved, as a result of the vibration through the instrument, but the percussive effect is the primary element of this technique.

### Brush Hits/Scrapes

*Snare Drum (track 44), Bass Drum (track 45)*

(m. 1, 81, 99, 195, 250)

Scraping with wire brushes creates an atmospheric texture when the player uses a “stirring” motion. The drum can also be hit with the brushes. The brushes give a less focused sound than a drumstick or mallet, and the sound is not as loud as when playing with drumsticks.

## Timbral Effects/Techniques Utilized by Single Instruments

### Flute

#### *Jet Whistle (track 46)*

By covering the embouchure hole entirely with the mouth and blowing into the flute with great force, the performer can achieve a loud, shrill whistle that lowers in pitch.

### Oboe

#### *Reed Alone (track 47)*

Removing the reed from the instrument and blowing into it creates a high-pitched sound which resembles a duck call. Alternating between covering the end of the reed with the hand and removing the hand while playing, creates a “wah-wah” effect and varies the pitch slightly.

### Clarinet

#### *Teeth on the Reed (track 48)*

As a result of the player placing his/her teeth on the back of the reed and blowing into the instrument, the clarinet can produce a high-pitched, shrill, screaming sound.

#### *Smear (track 49)*

(m. 7)

The clarinet can slide between pitches. This can be accomplished with the fingers, the embouchure, or a combination of both. The open-hole keys on the clarinet provide the

player with great control of the pitch while pulling his/her fingers off the keys, allowing the sound to blur smoothly between two pitches.

### Trumpet (B flat)

#### *Playing Without Second Valve Slide (track 50)*

When playing without the second valve slide, a concert E pitch will sound. The tone is much raspier and throatier than when the valve slide is in its normal position.

#### *Pedal Tone (track 51)*

(m. 229)

When sounding a low concert E (as well as some other low pitches), the trumpet can jump down two octaves from the notated pitch. The sound is very weak and rough. The player can accomplish this technique by using a relaxed embouchure. The pitch is not greatly noticeable – it is covered by the gravelly texture of the sound.

### French Horn

#### *Fingernail Tap (track 52)*

A player can drum with his/her fingernails on the bell of the horn, creating a percussive, tinny sound.

### Trombone

#### *Rip (track 53)*

Playing a low note and moving the slide in to bring the pitch up creates a sliding effect known as a “rip”.



## Tuba

### *Mouthpiece Pop (track 54)*

(m. 8)

By slapping the hand against the mouthpiece (still attached to the tuba) the player can create a thudding sound similar to a tongue slap, but louder because the force entering the mouthpiece is much greater and therefore gives greater resonance.

### *Buzzing Without Main Tuning Slide (track 55)*

Playing without the main tuning slide creates a buzzing sound. There can be some variance in pitch, depending on how the player sets his/her embouchure, but the valves are not a factor since the slide is gone. Therefore, the buzzing effect is the most noticeable aspect of this technique.

## Snare Drum

### *Rim Shots (track 56)*

(m. 14, 77)

The snare drum can be struck simultaneously on the head and the rim. This creates a focused, whip-like hit. If a large amount of stick is applied to the drumhead, the sound becomes deeper; with less stick on the head, the sound is brighter and more intense.

### *Stick Shots (track 57)*

Placing the end of one drumstick against the drumhead and then hitting the drumstick with another stick can create a reaction hit. The sound of one stick hitting another is amplified through the drum. The angle of the stick against the head can be adjusted,

which creates a deeper or shallower sound, depending on which direction the stick is turned.

### Bass Drum

#### *Superball Scrape (track 58)*

(m. 227)

Scraping along the head of the drum with a “Superball” creates a rumbling, atmospheric-like effect. A Superball is a rubber ball that has been placed on a wooden dowel, looking like a normal mallet but having much more friction potential due to the stickiness of the rubber ball. The friction created by rubbing the rubber ball against the drumhead creates the rumbling sound.

### Suspended Cymbal

#### *Triangle Beater Scrape (track 59)*

(m. 208, 217, 255)

Scraping with a triangle beater along the radius of the suspended cymbal creates a metallic sound. Any metal object can be used to scrape the cymbal and make the sound. Triangle beaters, available to most percussionists, make a good tool.

### *Playing with Bow (track 60)*

(m. 6, 200)

By bowing the edge of the cymbal with a double bass bow, a whining, guttural sound can be achieved. In some ways it has a similar sound to a traditional cymbal roll, but is a lot scratchier.

### Timpani

#### *Crotal on Head (track 61)*

(m. 205, 262)

By placing a crotal on the head of a timpani drum, two things can be accomplished. First, the crotal (which produces a high, bell-like pitch) has much more resonance than normal, due to being placed on the drumhead. Second, the timpani pedal can be adjusted while the crotal is resonating, creating a “sliding,” glissando sound.

#### *Cymbal on Head (track 62)*

Like a crotal, a cymbal being placed upside down on the drumhead and struck can resonate with the timpani, and therefore can have the effect of pitch change when the timpani pedal is adjusted. Due to the difference in size and material, a cymbal has a much lower and broader sound than that of a crotal.

#### *Striking Node (track 63)*

(m. 242)

When hit in the center of the drumhead (the node), the timpani gives a much duller, emptier sound than when hit on other areas of the head.

## **Alternate Clarinet Setups**

### *Mouthpiece Alone (track 64)*

By blowing through the mouthpiece alone (with no instrument body) a clear, high-pitched screaming sound can be achieved. The pitch can be altered by either 1) placing a finger into the bottom of the mouthpiece or 2) using a finger to partially cover the bottom of the mouthpiece.

### *Mouthpiece + Barrel (track 65)*

(m. 249)

By adding the barrel of the clarinet to the mouthpiece, the player can produce a slightly lower pitch than that of the mouthpiece alone. By placing a finger in the bottom of the barrel to further alter the air stream, other pitches can be produced. When a finger is placed all the way up to the mouthpiece (through the barrel) a high, shrill harmonic can be activated.

### *Mouthpiece + Lower Joint + Bell (track 66)*

Attaching the mouthpiece and lower joint to the bell of the clarinet creates an instrument that can play a limited amount of pitches. It produces a similar sound to a traditional clarinet, but is slightly “duller” and more “nasal.”

## **Alternate Alto Saxophone Instrument Setups**

### *Mouthpiece Alone (track 67)*

Like the clarinet, blowing into the mouthpiece alone creates a standard pitch when the mouthpiece is removed, and the player can insert his/her finger into the bottom of the

mouthpiece to alter the pitch. The airflow can be altered to make the pitch slightly higher or lower. The change is very smooth and gives the effect of sliding.

#### *Mouthpiece + Neck (track 68)*

This technique is very similar to that of *Mouthpiece Alone*. The “default” pitch is lower than that of the clarinet, and when the player inserts his/her finger all the way up into the mouthpiece, the pitch jumps to a much higher pitch, two octaves above the default played pitch.

### **Trumpet Mutes**

While not an extended technique, the use of a mute produces a timbre much different than that of an instrument by itself. When being played with a mute in the bell, the instrument sound is filtered and greatly reduced in volume.

#### *Harmon Mute (track 69)*

(m. 186)

The Harmon mute produces a focused and piercing sound. It brings a tinny and shimmering quality to the instrument.

#### *Straight Mute (track 70)*

(m. 236)

The straight mute has a similar sound to the Harmon but produces the much louder sound of the two mutes.

## SECTION 4: SUMMARY

The objective in writing *Breath of the Mountains* was to research extended techniques for wind and percussion instruments, and then to incorporate the techniques into a sizeable composition that would feature selected extended techniques. Of the seventy (70) techniques and sounds recorded, thirty-one (31) were included in *Breath of the Mountains*.

Many of these extended techniques are subtle, adding texture to a musical phrase that could stand on its own without an extended technique. A valuable feature of these techniques is the ability to expand the sound palette of the work without drawing undue attention. Other techniques are in the forefront, which speaks to their ability to become leading melodic passages or motivic elements.

The versatility of extended techniques to infuse a richer texture into a composition was demonstrated in *Breath of the Mountains*. A fuller expression of color, texture, and setting can be achieved with the inclusion of nontraditional sounds in a musical work.

## REFERENCES

- Brown, John Robert. "Clarinet Glissando." John Robert Brown. Accessed April 21, 2017.  
<http://www.john-robert-brown.com/clarinet-glissando.htm>.  
Originally published by Music Teacher magazine, 2007.
- Cherry, Amy Kristine. "Extended Techniques in Trumpet Performance and Pedagogy."  
PhD diss., University of Cincinnati, 2009. Accessed January 30, 2017.  
<https://etd.ohiolink.edu/>
- Easton, Jay C. "Extended Saxophone Techniques." Jay C. Easton: Extended Saxophone  
Techniques. Accessed February 25, 2017.  
[http://www.jayeaston.com/Composers/sax\\_techniques.html](http://www.jayeaston.com/Composers/sax_techniques.html).
- Elliot, Doug. "Slap Tonguing." Online Forum. July 8, 2008. The Trombone Forum.  
<http://tromboneforum.org/index.php?topic=40904.0;wap2?>  
Reply #2.
- Estes, Kevin. "Categorized Extended Technique List." Google Sites. Accessed February  
24, 2017. [https://sites.google.com/site/timpaniextendedindex/categorized-  
extended-technique-list](https://sites.google.com/site/timpaniextendedindex/categorized-extended-technique-list).
- Gross, John. *Multiphonics for the Saxophone: A Practical Guide ; 178 Different Note  
Combinations*. Germany: Advance Music, 1998.
- Horne, Robin Mason. "Extended Techniques Resource Page." Larry Krantz Flute Pages:  
Extended Techniques Resource Page. 2000. Accessed March 23, 2017.  
<http://www.larrykrantz.com/et/et.htm>.
- Hugill, Andrew. "Bassoons: Extended Techniques." The Orchestra: A User's Manual.  
Accessed February 07, 2017.  
[http://andrewhugill.com/OrchestraManual/bassoon\\_extended.html](http://andrewhugill.com/OrchestraManual/bassoon_extended.html).
- Hugill, Andrew. "Flute: Extended Techniques." The Orchestra: A User's Manual.  
Accessed March 23, 2017.  
<http://andrewhugill.com/manuals/flute/extended.html>.
- Hugill, Andrew. "Oboes: Extended Techniques." The Orchestra: A User's Manual.  
Accessed March 23, 2017.  
[http://andrewhugill.com/OrchestraManual/oboe\\_extended.html](http://andrewhugill.com/OrchestraManual/oboe_extended.html).
- Hugill, Andrew. "Saxophone: Extended Techniques." The Orchestra: A User's Manual.  
Accessed February 25, 2017.  
<http://andrewhugill.com/manuals/saxophone/extended.html>.

- Hugill, Andrew. "Trombones: Extended Techniques." *The Orchestra: A User's Manual*. Accessed January 31, 2017. [http://andrewhugill.com/OrchestraManual/trombone\\_extended.html](http://andrewhugill.com/OrchestraManual/trombone_extended.html).
- Kennedy, Sean M. "An Approach to Standardizing Pedagogy for Extended Techniques on Tuba." PhD diss., Texas Tech University, 2016. Accessed February 9, 2017. <https://ttu-ir.tdl.org/ttu-ir/bitstream/handle/2346/68081/KENNEDY-PROJECTPROGRAMS-DMA-2016.pdf?sequence=1>.
- Moller, Mats. "Flute Extended Techniques 1." Scribd. Accessed March 23, 2017. <https://www.scribd.com/doc/23258862/Flute-Extended-Techniques-1>.
- Nelson, Brandon. "Extended Composition Techniques for the Horn." Brandon Nelson. August 22, 2012. Accessed February 21, 2017. <https://bnelsonmusic.wordpress.com/2012/04/09/extended-compositon-techniques-for-the-horn/>.
- Parker, Steve. "Slap Tongue." *Steve-parker.net*. April 30, 2013. Accessed April 5, 2017. <http://steve-parker.net/entries/general/slap-tongue->.
- Pollard, Amy Marinello. "Solving the "Problems" of Extended Techniques: Annotated Performance Guides to Sofia Gubaidulina's Bassoon Works." PhD diss., University of Cincinnati, 2012. Accessed February 14, 2017. [https://etd.ohiolink.edu/rws\\_etd/document/get/ucin1337263893/inline+](https://etd.ohiolink.edu/rws_etd/document/get/ucin1337263893/inline+).
- Rees, Carla. "The Kingma System Bass Flute: A Practical Guide for Composers and Performers." *Bassflute.co.uk*. 2013. Accessed April 22, 2017. <http://www.bassflute.co.uk/02-pitch/pitch-bends-and-glissandi.html>.
- Rehfeldt, Phillip. *New Directions for Clarinet*. Berkeley: University of California Press, 1977.
- Tictactux. "Thread: Clarinet Glissando." Online Forum. August 18, 2007. Sax on the Web Forum. Accessed April 22, 2017. <https://forum.saxontheweb.net/showthread.php?65121-Clarinet-Glissando.Message#2>.
- "Williwaw." Merriam-Webster. Accessed April 04, 2017. <https://www.merriam-webster.com/dictionary/williwaw>.
- "Zephyr." Merriam-Webster. Accessed April 04, 2017. <https://www.merriam-webster.com/dictionary/zephyr>.



## APPENDIX: ATTACHED AUDIO RECORDINGS

Audio recordings can be accessed on the compact disc accompanying this document.

Recordings can also be accessed online by viewing the sounds folder at:

[https://drive.google.com/drive/folders/oB\\_ku-  
wwIVd7PWHZUMmEodHV1Yko?usp=sharing](https://drive.google.com/drive/folders/oB_ku-wwIVd7PWHZUMmEodHV1Yko?usp=sharing)

## **Vita**

Benjamin Parks Dawson was born in Bay City, Michigan, to David and Regina Dawson. He was awarded the Bachelor of Arts degree from Thomas Edison State University in 2011, majoring in history. Mr. Dawson subsequently pursued studies in music composition with Dr. Maria Niederberger at East Tennessee State University in Johnson City, Tennessee, and taught violin and piano in a private studio. In the fall of 2015, he accepted an assistantship in the Hayes Graduate String Quartet at Appalachian State University and began study of music composition and theory toward a Master of Music degree. The M.M. was awarded in May 2017. In September 2017, Mr. Dawson commenced teaching music theory at King University, Bristol, Tennessee.

Mr. Dawson is a member of Pi Kappa Lambda and has served on the Boards of the Mountain Empire Children's Choral Academy and the Appalachian Men's Ensemble. He plays violin in the Johnson City Symphony Orchestra and the Symphony of the Mountains, where he also serves as staff arranger.

# Breath of the Mountains

for wind ensemble

Duration: 13 minutes

Benjamin Dawson

Instrumentation

Piccolo	Trumpet in Bb 1
Flute 1	Trumpet in Bb 2
Flute 2	Trumpet in Bb 3
Oboe 1	Horn in F 1
Oboe 2	Horn in F 2
Bassoon 1	Horn in F 3
Bassoon 2	Horn in F 4
Contrabassoon	Trombone 1
Clarinet in Bb 1	Trombone 2
Clarinet in Bb 2	Bass Trombone
Clarinet in Bb 3	Euphonium
Bass Clarinet	Tuba
Contrabass Clarinet	Double Bass
Alto Saxophone 1	Timpani
Alto Saxophone 2	Percussion 1
Tenor Saxophone	Percussion 2
Baritone Saxophone	Percussion 3
	Percussion 4
	Percussion 5

Percussion Setup

The Timpani player will need access to two (2) crotales as notated in the score; one pitched at F#5, the other at G#5. The Suspended Cymbal and Anvil can be shared between percussionists; multiple sets of each instrument are helpful but not required.

Percussion 1  
Snare Drum  
Suspended Cymbal

Percussion 2  
Bass Drum  
Anvil

Percussion 3  
Suspended Cymbal  
Xylophone  
Temple Blocks

Percussion 4  
Triangle  
Tom-toms (4)  
Suspended Cymbal

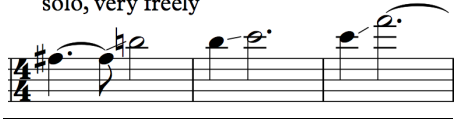
Percussion 5  
Marimba (5 octave)  
Anvil  
Suspended Cymbal

Selected Extended Techniques

Clarinet

Smear

Glissando from one note to the next, creating a “sliding” effect. The smear should not begin until the end of the duration of the first note, as indicated by ties when needed.  
solo, very freely



Trumpet

Pedal Tone

Although there is a notated pitch when a pedal tone is produced, the sound will be raspy and gravelly and the pitch should not take precedence over the texture of the sound.  
tutti, pedal tone



Euphonium/Tuba

Mouthpiece Pop

With the mouthpiece in the horn, the player should quickly strike the palm of his/her hand against the top of the mouthpiece, forcing air through the instrument and creating a “thudding” sound.

Percussion

Mouthpiece/Barrel Alone

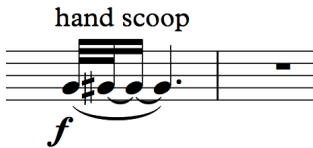
Play through only the mouthpiece and barrel, removing them from the rest of the instrument. To produce smears using this setup, the performer should move his/her pinky finger up and down inside the barrel. To achieve a harmonic (as notated in score) the pinky must be pressed inside the barrel all the way up to the mouthpiece.



French Horn

Hand Scoop

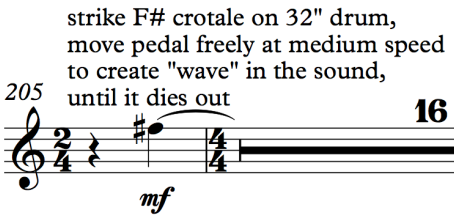
Start by stopping the horn and then pulling the hand out to arrive on the second notated pitch while playing. This is shown with literal notation in the score.



Percussion

Crotal on Timpani

The score calls for two crotales to be struck (one at a time) while on top of a 32” drum. After the crotal is struck, the timpani player should move the timpani pedal up and down (at prescribed speed) to create a “wave” in the sound. The crotal sound should take precedence over the timpani resonance.



Saxophone

Scoop

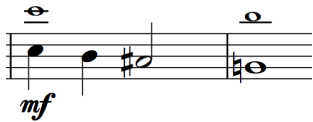
Start less than a half step below the second notated pitch and slide up into it by adjusting the embouchure. This is shown with literal notation in the score.



Trombone

Multiphonics

The performer should sing the top (small) note into the horn, while simultaneously playing the lower (larger) note on the instrument.



Tongue Slaps

Quickly stop the tongue against the mouthpiece while blowing through the instrument – there is a slight pitch produced, but the percussive effect is primary.

This piece was written as the Masters Thesis component in partial fulfillment of the Master of Music degree at the Hayes School of Music (Appalachian State University). Extended Techniques were researched and recorded in collaboration with student performers at the University and documented (*Timbral Explorations for Wind & Percussion Instruments*). On May 1, 2017, the piece was recorded by the Appalachian Wind Ensemble under the direction of Dr. John Stanley Ross, to whom much thanks is extended.

Benjamin Dawson 11/10/17

## Breath of the Mountains

Benjamin Dawson

**I. Williwaw**  $\text{♩} = 70$  Benjamin Dawson

**2** **3** **4** **5** **6**

Piccolo

Flute 1

Flute 2

Oboe 1

Oboe 2

Bassoon 1

Bassoon 2

Contrabassoon

Clarinet in B $\flat$  1

Clarinet in B $\flat$  2

Clarinet in B $\flat$  3

Bass Clarinet in B $\flat$

Contrabass Clarinet in B $\flat$

Alto Saxophone 1

Alto Saxophone 2

Tenor Saxophone

Baritone Saxophone

**Mysteriously**  $\text{♩} = 70$

Trumpet in B $\flat$  1

Trumpet in B $\flat$  2

Trumpet in B $\flat$  3

Horn in F 1

Horn in F 2

Horn in F 3

Horn in F 4

Trombone 1

Trombone 2

Bass Trombone

Euphonium

Tuba

Double Bass

**Mysteriously**  $\text{♩} = 70$

Timpani

Percussion 1

Percussion 2

Percussion 3

Percussion 4

Percussion 5

1) Blow through instrument pressing down keys, but without making a pitch

2) Blow through instrument without making a pitch

\*) Remove mouthpiece, turn around and blow through small end of mouthpiece towards leadpipe, with mouthpiece approximately one inch away from leadpipe

This image shows a page from a musical score, likely for a symphony or concert band. The score is written for a large ensemble, including woodwinds, brass, percussion, and strings. The page is numbered 7 at the top left.

The score is organized into systems, with each system containing multiple staves. The staves are labeled as follows:

- Picc.
- Fl. 1
- Fl. 2
- Ob. 1
- Ob. 2
- Bsn. 1
- Bsn. 2
- Cbsn.
- Cl. 1
- Cl. 2
- Cl. 3
- B. Cl.
- Cb. Cl.
- A. Sax. 1
- A. Sax. 2
- T. Sax.
- Bari. Sax.
- Tpt. 1
- Tpt. 2
- Tpt. 3
- Hn. 1
- Hn. 2
- Hn. 3
- Hn. 4
- Tbn. 1
- Tbn. 2
- B. Tbn.
- Euph.
- Tba.
- Db.
- Timp.
- Perc. 1
- Perc. 2
- Perc. 3
- Perc. 4
- Perc. 5

The score includes various musical notations, including notes, rests, and dynamic markings such as *p* (piano) and *ff* (fortissimo). There are also performance instructions, such as "solo, normale very freely, smear" for the Clarinet 1 part and "With energy" for the Trombone 1 part. The score is written in a standard musical notation style, with a key signature of one sharp (F#) and a time signature of 2/4.









With strength ♩ = 80

38

39

40

41

A

42

43

44

45

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

With strength ♩ = 80

A

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

With strength ♩ = 80

A

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

Triangle

4647484950

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

51 52 53 54 55 56 57

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

Marimba

Xylophone

Suspended Cymbal with yarn mallets

hand scoop, stop horn to achieve 1st note and pull hand out to arrive on 2nd note

58 59 60 61 62 63 64

Picc. *p* *mp* *f* *ff* *f*

Fl. 1 *p* *mp* *f* *mp* *mf* *f* *f*

Fl. 2 *p* *mp* *f* *mf* *f* *f* *f*

Ob. 1 *p* *mp* *f* *mf* *f* *f* *f*

Ob. 2 *p* *mp* *f* *mf* *f* *f* *f*

Bsn. 1 *p* *f* *mf* *ff* *f*

Bsn. 2 *mp* *f* *mf* *ff* *f*

Cbsn. *f* *mf* *ff* *f*

Cl. 1 *p* *f* *mf* *ff* *f*

Cl. 2 *p* *mf* *ff* *f*

Cl. 3 *p* *mf* *ff* *f*

B. Cl. *f* *mf* *ff* *f*

Cb. Cl. *f* *mf* *ff* *f*

A. Sax. 1 *f* *f* *f*

A. Sax. 2 *f* *f* *f*

T. Sax. *f* *f* *f*

Bari. Sax. *mp* *f* *f* *f*

Tpt. 1 *mf* *ff* *f*

Tpt. 2 *mf* *ff* *f*

Tpt. 3 *mf* *ff* *f*

Hn. 1 *mf* *ff* *f*

Hn. 2 *f* *mf* *ff* *f*

Hn. 3 *mf* *ff* *f*

Hn. 4 *mf* *ff* *f*

Tbn. 1 *mf* *f* *mf* *ff* *f*

Tbn. 2 *mf* *f* *mf* *ff* *f*

B. Tbn. *f* *mf* *ff* *f*

Euph. *mf* *f* *mf* *ff* *f*

Tba. *f* *mf* *ff* *f*

Db. *mp* *f* *mf* *ff* *f*

Timp. *mf* *ff* *f*

Perc. 1 Snare Drum with sticks *mp* *mf* *ff* *R.S.*

Perc. 2 *mf* *ff* *f*

Perc. 3 *mf* *f* *ff* *f*

Perc. 4 *mf* *ff* *f*

Perc. 5 Suspended Cymbal with yarn mallets *mf* *ff* *f*

65 66 67 68 69 70

Picc. *ff* *mp*

Fl. 1 *ff* *mp*

Fl. 2 *ff* *mp*

Ob. 1 *ff* *p*

Ob. 2 *ff* *p*

Bsn. 1 *ff* *p*

Bsn. 2 *ff*

Cbsn. *ff* *p*

Cl. 1 *f* *ff* *p*

Cl. 2 *f* *ff* *p*

Cl. 3 *f* *ff* *p*

B. Cl. *ff*

Cb. Cl. *ff*

A. Sax. 1 *ff* *p*

A. Sax. 2 *ff* *p*

T. Sax. *ff* *p*

Bari. Sax. *ff* *p*

Tpt. 1 *ff* *p*

Tpt. 2 *p*

Tpt. 3 *p*

Hn. 1 *f*

Hn. 2 *f* *ff* *p*

Hn. 3 *f*

Hn. 4 *ff* *p*

Tbn. 1 *f* *ff* *p*

Tbn. 2 *f* *ff* *p*

B. Tbn. *f* *ff* *p*

Euph. *f* *ff* *p*

Tba. *f* *ff* *p*

Db. *p*

Timp. *f*

Perc. 1 *R.S.*

Perc. 2 *f*

Perc. 3 *mp*

Perc. 4 *p*

Perc. 5 *mf* *f*

717273747576

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5









96 97 98 99 100 101 102 17

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

Bass Drum

with brushes

*mf*

*mp*

*p*

*tutti*

*D*



[illegible]

**E Gathering the winds**

118119120121122123124125

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

**E Gathering the winds**

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

pizz. like you mean it!

**E Gathering the winds**

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

126127128129130131132

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

This is a page from a musical score, likely for a symphony. The score is written in 2/4 time and includes dynamic markings such as *f* (forte) and *mf* (mezzo-forte). The instruments listed on the left include Picc., Fl. 1, Fl. 2, Ob. 1, Ob. 2, Bsn. 1, Bsn. 2, Cbsn., Cl. 1, Cl. 2, Cl. 3, B. Cl., Cb. Cl., A. Sax. 1, A. Sax. 2, T. Sax., Bari. Sax., Tpt. 1, Tpt. 2, Tpt. 3, Hn. 1, Hn. 2, Hn. 3, Hn. 4, Tbn. 1, Tbn. 2, B. Tbn., Euph., Tba., Db., Timp., Perc. 1, Perc. 2, Perc. 3, Perc. 4, and Perc. 5. The score is divided into measures, with some measures containing rests and others containing notes. The percussion section includes a variety of instruments, including timpani, snare drum, and cymbals. The woodwind section includes flutes, oboes, bassoons, and clarinets. The brass section includes trumpets, horns, trombones, euphonium, and tuba. The string section includes double bass. The score is written in a standard musical notation with a key signature of one flat (B-flat) and a time signature of 2/4. The page number 10 is visible in the top right corner.



This page of the musical score contains measures 139 through 144. The instrumentation includes Piccolo, Flutes 1 and 2, Oboes 1 and 2, Bassoons 1 and 2, Contrabassoon, Clarinets 1, 2, and 3, Bass Clarinet, Contrabass Clarinet, Alto Saxophones 1 and 2, Tenor Saxophone, Baritone Saxophone, Trumpets 1, 2, and 3, Horns 1, 2, 3, and 4, Trombones 1 and 2, Bass Trombone, Euphonium, Tuba, Double Bass, Timpani, and various Percussion instruments (1-5). The score features a key signature change to D major at measure 144 and a tempo change to 'A tempo, Triumphantly' with a tempo marking of ♩ = 120. The percussion section includes a suspended cymbal with yarn mallets.

145

146

147

148

149

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5



158 159 160 161 162 163

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

**F** With longing

**F** With longing

**F** With longing

172

173

174

175

176

177

178

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

This image shows a page from a musical score, likely for a symphony or concert band. The score is written for a large ensemble, including woodwinds, brass, and percussion. The staves are arranged in a system, with each instrument or section having its own staff. The notation includes various musical symbols such as notes, rests, and dynamic markings (e.g., *mf*, *f*, *p*). The score is written in a standard musical notation style, with a key signature of one sharp (F#) and a common time signature (C). The instruments listed on the left include Piccolo (Picc.), Flute 1 (Fl. 1), Flute 2 (Fl. 2), Oboe 1 (Ob. 1), Oboe 2 (Ob. 2), Bassoon 1 (Bsn. 1), Bassoon 2 (Bsn. 2), Contrabassoon (Cbsn.), Clarinet 1 (Cl. 1), Clarinet 2 (Cl. 2), Clarinet 3 (Cl. 3), Bass Clarinet (B. Cl.), Contrabass Clarinet (Cb. Cl.), Alto Saxophone 1 (A. Sax. 1), Alto Saxophone 2 (A. Sax. 2), Tenor Saxophone (T. Sax.), Baritone Saxophone (Bari. Sax.), Trumpet 1 (Tpt. 1), Trumpet 2 (Tpt. 2), Trumpet 3 (Tpt. 3), Horn 1 (Hn. 1), Horn 2 (Hn. 2), Horn 3 (Hn. 3), Horn 4 (Hn. 4), Trombone 1 (Tbn. 1), Trombone 2 (Tbn. 2), Baritone Trombone (B. Tbn.), Euphonium (Euph.), Tuba (Tba.), Double Bass (Db.), and Timpani (Timp.). The percussion section includes five different types of percussion instruments (Perc. 1 to Perc. 5). The score is written in a standard musical notation style, with a key signature of one sharp (F#) and a common time signature (C). The instruments listed on the left include Piccolo (Picc.), Flute 1 (Fl. 1), Flute 2 (Fl. 2), Oboe 1 (Ob. 1), Oboe 2 (Ob. 2), Bassoon 1 (Bsn. 1), Bassoon 2 (Bsn. 2), Contrabassoon (Cbsn.), Clarinet 1 (Cl. 1), Clarinet 2 (Cl. 2), Clarinet 3 (Cl. 3), Bass Clarinet (B. Cl.), Contrabass Clarinet (Cb. Cl.), Alto Saxophone 1 (A. Sax. 1), Alto Saxophone 2 (A. Sax. 2), Tenor Saxophone (T. Sax.), Baritone Saxophone (Bari. Sax.), Trumpet 1 (Tpt. 1), Trumpet 2 (Tpt. 2), Trumpet 3 (Tpt. 3), Horn 1 (Hn. 1), Horn 2 (Hn. 2), Horn 3 (Hn. 3), Horn 4 (Hn. 4), Trombone 1 (Tbn. 1), Trombone 2 (Tbn. 2), Baritone Trombone (B. Tbn.), Euphonium (Euph.), Tuba (Tba.), Double Bass (Db.), and Timpani (Timp.). The percussion section includes five different types of percussion instruments (Perc. 1 to Perc. 5). The score is written in a standard musical notation style, with a key signature of one sharp (F#) and a common time signature (C).



**H With angst**

195 196 197 198 199 200 201 202

Picc. Fl. 1 Fl. 2 Ob. 1 Ob. 2 Bsn. 1 Bsn. 2 Cbsn. Cl. 1 Cl. 2 Cl. 3 B. Cl. Cb. Cl. A. Sax. 1 A. Sax. 2 T. Sax. Bari. Sax.

*p* *mf* *mp* *mf* solo

31

**H With angst**

The musical score is for a piece titled "H With angst". It is written for a large ensemble of 12 instruments: three Trumpets (Tpt. 1, 2, 3), four Horns (Hn. 1, 2, 3, 4), three Trombones (Tbn. 1, 2, B. Tbn.), an Euphonium (Euph.), a Tuba (Tba.), and a Double Bass (Db.). The score is in 3/4 time and consists of 8 measures. The first three measures have a 3/4 time signature, and the remaining five measures have a 4/4 time signature. The key signature has one sharp (F#). The notation is mostly rests, with some notes in the first measure of the 4/4 section.

**H With angst**

Timp.

Perc. 1 stir with brushes *p* *f* *mp* play notated rhythm normally, then return to stirring for tied durations

Perc. 2 stir with brushes *p* *f* *mp* play notated rhythm normally, then return to stirring for tied durations

Perc. 3

Perc. 4 Suspended cymbal, with bow *pp* *mp*

Perc. 5



212 213 214 215 216 217 218 219 220

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Bsn. 1

Bsn. 2

Cbsn.

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Cb. Cl.

A. Sax. 1

A. Sax. 2

T. Sax.

Bari. Sax.

Tpt. 1

Tpt. 2

Tpt. 3

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tbn. 1

Tbn. 2

B. Tbn.

Euph.

Tba.

Db.

Timp.

Perc. 1

Perc. 2

Perc. 3

Perc. 4

Perc. 5

[illegible]



This page of a musical score is for a large orchestra, featuring staves for woodwinds, brass, and percussion. The score includes dynamic markings like *ff* and *p*, and tempo changes such as **A tempo, with anger!** and **Peacefully**.

The woodwind section includes Piccolo, Flute 1 and 2, Oboe 1 and 2, Bassoon 1 and 2, and Contrabassoon. The brass section includes Clarinet 1, 2, and 3, Bass Clarinet, Contrabass Clarinet, Alto Saxophone 1 and 2, Tenor Saxophone, Baritone Saxophone, Trumpet 1, 2, and 3, Horn 1, 2, 3, and 4, Trombone 1, 2, and 3, Euphonium, Tuba, and Double Bass. The percussion section includes Timpani, Percussion 1, 2, 3, 4, and 5.

The score is written in 3/4 time and includes various dynamic markings such as *ff* (fortissimo) and *p* (piano). The tempo changes are indicated by **A tempo, with anger!** and **Peacefully**.

\*\*) play with only mouthpiece and barrel, creating smears by moving pinky finger up and down inside the bottom of the barrel

## Delicately, with calmness

**Delicately, with calmness**

\*\*\*) activate harmonic by pushing finger from bottom of barrel, all the way to the top of mouthpiece

G# crotal on drum as before,  
slowly move pedal as before